

CLAIMS

1. A networked system for managing commercial interactions, comprising:
- a network service providing a plurality of network paths between computers at a plurality of remote locations, and providing network software interfaces at these locations,
- bundle processing logic between the computers at the plurality of locations, the bundle processing logic being responsive to a set of instructions to detect predetermined conditions in content attribute descriptors in the bundles, and to perform operations in response to the detection of the predetermined conditions in the content attribute descriptors, and
- a programming interface for the bundle processing logic that is accessible from each of the locations and is operative to define at least part of the set of instructions for the bundle processing logic.
2. The apparatus of claim 1 wherein the bundle processing logic includes logic to detect conditions in at least one of both a plurality of required content fields and a plurality of user-defined fields.
3. The apparatus of claim 1 further including an application component having an interface to a stand-alone software application and an interface to the programming interface of the bundle processing logic.
4. The apparatus of claim 1 further including peer-to-peer transfer logic to enable peer-to-peer access to data elements referenced in the bundles.
5. The apparatus of claim 1 further including alerting logic responsive to the bundle processing logic.

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6. The apparatus of claim 1 further including content blending logic responsive to the bundle processing logic.
 7. The apparatus of claim 1 further including security logic between the computers at the plurality of locations and responsive to security information in the bundles to restrict distribution of the bundles.
 8. The apparatus of claim 1 wherein the bundle processing logic is operative to nest at least some of the bundles in superbundles that include additional information.
 9. The apparatus of claim 8 wherein each bundle includes security information identifying entitled accessors of the data, and wherein only accessors with entitlements to both a bundle and its superbundle can see both the bundle and the superbundle.
 10. A networked commercial interaction management method, comprising:
receiving programming commands from locations on a network,
distributing data bundles through the network, and
performing operations in response to the detection of the predetermined conditions in the content attribute descriptors for the bundles.
 11. A networked system for managing commercial interactions, comprising:
means for receiving programming commands from locations on a network,
means for distributing data bundles through the network, and
means for performing operations in response to the detection of the predetermined conditions in the content attribute descriptors for the bundles.
 12. A networked commercial interaction management method, comprising the steps of:

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assembling information into bundles, wherein each bundle consists of a data element reference and meta data describing the data element, and wherein each data element remains resident on a node of a data owner in a network,
distributing the meta data from the bundles through the network, and
distributing copies of the data elements in the bundles assembled in the step of assembling from the network node of their respective data owners to the network nodes of accessors, following selection of the data elements by the accessors.

13. The method of claim 12 wherein each bundle includes security information identifying entitled accessors of the data, and wherein the step of distributing only distributes the bundle to the entitled accessors.
14. The method of claim 13 further including the step of negotiating trusted relationships between owners and accessors to define the security information.
15. The method of claim 13 further including the step of selecting networked users to receive bundles from, from a directory of authorized networked users before the steps of distributing.
16. The method of claim 13 wherein a format for the security information allows for organization identifiers to be included in the security information.
17. The method of claim 12 further including the step of defining one of the meta data elements in response to owner input.
18. The method of claim 12 further including the step of recording the distribution of data element copies to accessors and associated information concerning the transaction.

19. The method of claim 12 wherein the meta data includes ticker symbol identification fields.
20. The method of claim 12 further including the step of nesting at least some of the bundles in superbundles that include additional information.
21. The method of claim 20 wherein each bundle includes security information identifying entitled accessors of the data, and wherein only accessors with entitlements to both a bundle and its superbundle can see both the bundle and the superbundle.
22. The method of claim 20 further including the step of presenting alternative content to recipients who lack entitlement to both the bundle and the superbundle.
23. The method of claim 20 wherein the bundle and the superbundle have different owners at different nodes and wherein the step of distributing distributes the bundle and the superbundle from the different nodes.
24. The method of claim 12 wherein the bundles include attachment references to one or more files of different types.
25. The method of claim 24 wherein the types include audio files, video files, graphical image files, and formatted document files.
26. The method of claim 12 wherein at least some of the bundles include references to other bundles.
27. The method of claim 26 wherein the references to other bundles include a replied-to reference.

28. The method of claim 12 further including periodically issuing bundle version identifying signals to the different nodes of the network.

29. The method of claim 28 wherein step of distributing meta data distributes updates and further including the step of requesting copies of the updates from at least one of the nodes in response to the identifying signals.

30. The method of claim 12 further including the step of filtering the bundles based on portions of the meta data.

31. The method of claim 12 wherein the step of distributing copies includes a peer-to-peer transfer.

32. The method of claim 12 further including the step of alerting a user in response to the detection of conditions in the meta data.

33. The method of claim 12 further including a step of blending content based on the detection of conditions in the meta data.

34. A networked system for managing commercial interactions, comprising:
a plurality of bundle distribution servers distributed across the network and being operative to distribute meta data from a plurality of bundles, and
retrieval logic to retrieve copies of data elements referenced in the bundles from the network node of their respective data owners to the network nodes of accessors.

35. A networked commercial interaction management method, comprising the steps of:

means for assembling information into bundles, wherein each bundle consists of a data element reference and meta data describing the data element, and wherein each data element remains resident on a node of a data owner in a network,

means for distributing the meta data from the bundles through the network, and

means for distributing copies of the data elements in the bundles assembled by the means for assembling from the network node of their respective data owners to the network nodes of accessors, following selection of the data elements by the accessors.

36. A networked commercial interaction management method, comprising the steps of:

receiving a data bundle including a plurality of content attribute descriptors and at least one content descriptor,

checking for predetermined conditions in the content attribute descriptors, and modifying the bundle when the predetermined conditions are detected.

37. The method of claim 36 further including the step of forwarding information from the bundle to a service provider and wherein the step of modifying is performed in response to operations performed by the service provider.

38. A networked system for managing commercial interactions, comprising:
a bundle-passing interface between a plurality of users,
a content modification service interface for the bundle-passing interface, and
bundle modification logic, wherein the bundle modification logic is responsive to bundles passing through the interface based on instructions provided to the content modification service.

39. A networked system for managing commercial interactions, comprising:
means for receiving a data bundle including a plurality of content attribute descriptors and at least one content descriptor,

means for checking for predetermined conditions in the content attribute descriptors, and

means for modifying the bundle when the predetermined conditions are detected.

40. A data memory for storing data for access by a computer application program being executed on a first node of a network in a data processing system, comprising a data bundle that includes:

a network routing field,

a plurality of meta data field descriptors,

a plurality of meta data field values, and

a reference to a content element, including information identifying the location of the content element on the network.

41. The data memory of claim 40 wherein the meta data fields include both fixed and variable numbers of fields.

42. The data memory of claim 40 wherein the meta data fields include an ownership field.

43. The data memory of claim 40 wherein the meta data fields include a version field for the bundle.